National Transportation Safety Board Washington, DC 20594

Brief of Accident

Adopted 04/25/2007

File No. 21534 10/14/2004 Jefferson City, MO Aircraft Reg No. N8396A Time (Local): 00:00 EDT Make/Model: Canadair / CL-600 Fatal Serious Engine Make/Model: Crew 2 0 Aircraft Damage: Destroyed Pass 0 0 Number of Engines: Unk/Nr Operating Certificate(s): Flag Carrier/Domestic

Type of Flight Operation: Positioning

Reg. Flight Conducted Under: Part 91: General Aviation

Last Depart. Point: Little Rock, AK Destination: Minneapolis, MN

Airport Proximity:

Airport Name: Unk/Nr Runway Identification: Unk/Nr Runway Length/Width (Ft): Unk/Nr

Runway Surface: Runway Surface Condition: Condition of Light:

Weather Info Src: Unknown

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Minor/None

0

0

Basic Weather: Lowest Ceiling: Visibility: Wind Dir/Speed:

Temperature (°C): Unk/Nr

Precip/Obscuration:

Flight Time (Hours)

Pilot-in-Command Age:

Certificate(s)/Rating(s)

DCA05MA003

Instrument Ratings

Total All Aircraft: Unk/Nr Last 90 Days: Unk/Nr Total Make/Model: Unk/Nr

Total Instrument Time: UnK/Nr

*** Note: NTSB investigators traveled in support of this investigation and used data obtained from various sources to prepare this aircraft accident report. ***

The Safety Board's full report is available at http://www.ntsb.gov/publictn/publictn.htm. The Aircraft Accident Report number is NTSB/AAR-07/01.

On October 14, 2004, about 2215:06 central daylight time, Pinnacle Airlines flight 3701 (doing business as Northwest Airlink), a Bombardier CL-600-2B19, N8396A, crashed into a residential area about 2.5 miles south of Jefferson City Memorial Airport (JEF), Jefferson City, Missouri. The airplane was on a repositioning flight from Little Rock National Airport, Little Rock, Arkansas, to Minneapolis-St. Paul International Airport, Minneapolis, Minnesota. During the flight, both engines flamed out after a pilot-induced aerodynamic stall and were unable to be restarted. The captain and the first officer were killed, and the airplane was destroyed. No one on the ground was injured. The flight was operating under the provisions of 14 Code of Federal Regulations Part 91 on an instrument flight rules flight plan. Visual meteorological conditions prevailed at the time of the accident.

DCA05MA003

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Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL

Phase of Operation: CRUISE

Findings

- 1. (C) AIRCRAFT HANDLING IMPROPER FLIGHTCREW
- 2. (C) IMPROPER USE OF PROCEDURE FLIGHTCREW
- 3. (C) AIR/GROUND COMMUNICATIONS DELAYED FLIGHTCREW
- 4. (C) IMPROPER DECISION FLIGHTCREW
- 5. (C) IN-FLIGHT PLANNING/DECISION IMPROPER FLIGHTCREW
- 6. (C) PROCEDURES/DIRECTIVES NOT FOLLOWED FLIGHTCREW
- 7. (C) CHECKLIST IMPROPER USE OF FLIGHTCREW
- 8. (C) PLANNING/DECISION DELAYED FLIGHTCREW
- 9. (F) CONDITION(S)/STEP(S) INSUFFICIENTLY DEFINED COMPANY/OPERATOR MANAGEMENT
- (C) PROCEDURE INADEQUATE COMPANY/OPERATOR MANAGEMENT
- 11. (C) PROCEDURE INADEQUATE MANUFACTURER
- 12. (F) INSTRUCTIONS, WRITTEN/VERBAL INADEQUATE MANUFACTURER
- 13. (F) CONDITION(S)/STEP(S) INSUFFICIENTLY DEFINED MANUFACTURER
- 14. (F) TURBINE ASSEMBLY, SEAL CLEARANCE
- 15. (F) TURBINE ASSEMBLY, SEAL LOCKED
- 16. (F) AIRCRAFT MANUALS, PROCEDURE INFORMATION INADEQUATE
- 17. (F) AIRCRAFT MANUALS, PERFORMANCE INFORMATION INADEQUATE

Findings Legend: (C) = Cause, (F) = Factor

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

(1) the pilots' unprofessional behavior, deviation from standard operating procedures, and poor airmanship, which resulted in an in-flight emergency from which they were unable to recover, in part because of the pilots' inadequate training; (2) the pilots' failure to prepare for an emergency landing in a timely manner, including communicating with air traffic controllers immediately after the emergency about the loss of both engines and the availability of landing sites; and (3) the pilots' improper management of the double engine failure checklist, which allowed the engine cores to stop rotating and resulted in the core lock engine condition. Contributing to this accident were (1) the core lock engine condition, which prevented at least one engine from being restarted, and (2) the airplane flight manuals that did not communicate to pilots the importance of maintaining a minimum airspeed to keep the engine cores rotating.